

In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) An isolated and purified nucleic acid molecule encoding an $\alpha 2\delta$ -4 calcium channel subunit protein, said nucleic acid molecule comprising a member selected from the group consisting of:
 - (a) a polynucleotide encoding a polypeptide having a the full-length sequence of SEQ ID NO: 10;
 - (b) a nucleic acid molecule that is complementary to the polynucleotide of (a);
 - (c) a nucleic acid molecule that hybridizes under a stringent condition to the polynucleotide molecule of (a), wherein said stringent condition comprises washing the hybrid at 65 °C with a buffer containing 0.04 M sodium phosphate, 1% SDS and 1 mM EDTA;
 - (d) a nucleic acid molecule that encodes a splice variant of a human $\alpha 2\delta$ -4 calcium channel subunit comprising exon 1B;
 - (e) a nucleic acid molecule that encodes a splice variant of a human $\alpha 2\delta$ -4 calcium channel subunit comprising exon 37B; and
 - (f) a nucleic acid molecule that encodes a splice variant of a human $\alpha 2\delta$ -4 calcium channel subunit comprising exon 1B and exon 37B.
2. (Previously presented) Any one of the nucleic acid molecules of claim 1 wherein the polynucleotide is RNA.
3. (Previously presented) Any one of the nucleic acid molecules of claim 1 wherein the polynucleotide is DNA.
4. (Currently amended) An isolated and purified nucleic acid molecule, having a the full-length nucleotide sequence of SEQ ID NO: 9.

5. (Currently amended) An expression vector to express an $\alpha 2\delta$ -4 calcium channel subunit protein in a recombinant host cell, wherein said vector contains a nucleic acid sequence encoding a polypeptide having ~~a~~ the full-length sequence of SEQ ID NO:10.
6. (Canceled).
7. (Previously presented) A cultured recombinant host cell containing an expression vector of claim 5.
8. to 12. (Canceled).
13. (Currently amended) A method for expressing an $\alpha 2\delta$ -4 calcium channel subunit protein in a recombinant host cell, comprising the steps of:
 - (a) introducing an expression vector capable of encoding a polypeptide having ~~a~~ the full-length sequence of SEQ ID NO:10 into a cell; and
 - (b) culturing the cells under conditions that allow expression of said polypeptide from the expression vector.
14. to 23. (Canceled).